

Claims

1. Receiver device for optical data signals, in particular optical data signals
5 in the Gb/s range, comprising an opto-electrical conversion unit, a
frequency multiplier unit for frequency-multiplying the converted
electrical data signal, and a clock recovery unit,

wherein

10 the frequency multiplier unit performs a frequency multiplication by a
factor of n , with n being a natural number larger than 2.

2. Receiver device according to claim 1, wherein the receiver device
15 comprises a frequency filter for the spectral power of the electrical data
signal, wherein the frequency filter transmits around B/n , wherein B is the
bit rate of the electrical data signal.

3. Receiver device according to claim 1, wherein $n=4$.

4. Receiver device according to claim 1, wherein the optical data signals
20 are Gb/s signals, in particular 10 Gb/s signals or 40 Gb/s signals.

5. Receiver device according to claim 1, wherein the clock recovery unit
25 comprises a phase locked loop circuit.

6. Receiver device according to claim 1, wherein the clock recovery unit
comprises a filter clock recovery circuit.

7. Data transmission system comprising an optical transmission link, in
30 particular an optical fiber system, wherein the optical transmission link

has a significant dispersion, and a receiver device according to claim 1.

- 5 8. Computer software for generating a clock signal out of an electrical data signal, in particular out of an electrical signal in the Gb/s range, wherein the electrical data signal is subjected to a frequency multiplication by a factor of n , with n being a natural number larger than 2, in particular $n=4$.